

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of:
Douglas Clark et al.

Serial No.: 09/334,256

Filed: June 16, 1999

**For: METHOD AND APPARATUS FOR
PLANNING AND MONITORING
MULTIPLE TASKS BASED ON USER
DEFINED CRITERIA AND PREDICTIVE
ABILITY**

Examiner: Forest Thompson

Group Art Unit: 2165

Assistant Commissioner for Patents
Washington, D.C. 20231

APPELLANTS' BRIEF ON APPEAL

Sir:

This is an appeal pursuant to 35 U.S.C. § 134 and 37 C.F.R. §§ 1.191 et seq. from the Final Rejection of claims 1-4 and 7-23 in the final Office Action mailed October 22, 2001. The fee for submitting this Appeal Brief ("Brief") is attached hereto. Any deficiency in the fees associated with this Brief should be charged to our Deposit Account No. 04-1073. Enclosed with this original are two copies of this Brief.

I. Real Party in Interest

The real party in interest in this appeal is Métier Ltd., of Washington D.C (Métier).
An assignment by the inventors to Métier was recorded at Reel 010189, Frame 0313.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 1-4 and 7-23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Duncan. Claims 1-4, 7, 8, 11-15, 19, and 21 were rejected under 35 U.S.C. §112(2) as being indefinite. Claims 5 and 6 were cancelled in the Amendment filed March 2, 2001.

IV. Status of Amendments

One After-Final Amendment is being filed subsequent to the Final Rejection mailed October 22, 2001. This After-Final Amendment is being filed concurrently with this Brief, and solely addresses the rejection of claims 1-4, 7, 8, 11-15, 19, and 21 under 35 U.S.C. §112(2) for indefiniteness (Final Office Action mailed October 22, 2001, page 4, paragraph 2). The After-Final Amendment amends claim 1 only, in accordance with the Examiner's suggestions. Thus, the claims set forth in the Appendix to this Appeal Brief are essentially those which were Finally Rejected, with the exception of being amended in accordance with the Examiner's suggestions. Notice that the Examiner intends to enter the After-Final Amendment is accordingly requested.

V. Summary of Invention

The present invention is directed at a system and method for enabling individual employees to plan their work within a limited tasking horizon. Employees track their progress using verbs that are designed to capture the reasons behind positive and negative predictive ability (specification, page 6, lines 1-2). Verbs may be selected to provide a series of potential answers to standard questions, such as why did you perform this task faster or slower than estimated. Verbs can also be broken down into employee dependent terms (health, well-being), task related terms (new computers not working), environmental terms (snow, weather), as well as other descriptors (col. 6, lines 17-22). These verbs are analyzed and expected predictive error or risk is calculated from the results of that analysis, including classifying the reasons for churn (col. 14, lines 10-13). Churn includes reasons why a task was performed either faster (negative) or slower (positive) than planned, and measures the predictive ability of an employee (col. 14, lines 13-16).

The verbs associated with churn are important in assigning task risk values and in deciding whether there is anything that an employer can do to minimize churn, either positive or negative (col. 19, lines 14-16). Accordingly, in subsequent project planning sessions, risk can be factored into the initial planning stage for the tasks that make up that project so as to include expected predictive error therein.

VI. Issues

Whether claims 1-4 and 7-23 are properly rejected under 35 U.S.C. § 103 as being unpatentable over Duncan.

VI. Grouping of Claims

A. Claims 1, 8, and 11-21 stand and fall together. Claims 2, 3, 4 stand and fall together. Claim 7 stands and falls by itself. Claims 9 and 23 stand and fall together. Claims 10 and 22 stand and fall together.

VIII. Argument

As Appellants discuss in detail below, the Final Rejection of claims 1-4 and 7-23 is devoid of a factual or legal basis that supports a prima facie non-obviousness rejection. For this reason alone, Appellants are entitled to a reversal by this Board of the outstanding rejection. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

A. THE SUBJECT MATTER DEFINED IN CLAIMS 1-4 AND 7-23 IS PATENTABLE OVER DUNCAN.

Claims 1-4 and 7-23 stand rejected under 35 U.S.C. §103 as being unpatentable over Duncan, "A Guide to the Project Management Body of Knowledge." This rejection is respectfully traversed for the following reasons.

THE PRESENT INVENTION

The present invention is directed to a method and apparatus that can be effectively utilized for modeling multiple tasks for multiple users. Appellants' system tracks the estimated start and stop dates and/or the actual start and stop dates for a particular task in relation to a current tasking horizon window. These differences are classified as the "churn" values for the task.

The present system also allows one or more inputs or verbs to be associated with any churn measurement. These verbs describe the reason(s) for the churn. The verbs may then be analyzed to provide the system with individualized risk factors that can in turn be

used to reduce churn and improve task efficiency. The present invention repeatedly refers to managing and isolating specific tasks within a project, and provides management and analysis of individual tasks which are unrelated to any specific project.

The present invention is designed to evaluate the entire workflow process for human factors on both macro and micro levels (page 5, lines 5-7), and breaks down projects into micro events and tracks an employee's predictive ability (the ability to plan and carry out tasks as planned). Further, the present invention provides a system for automatically detecting micro events and using the detected data to provide real-time project status.

Finally, the present invention provides distinct advantages over prior methods for modeling projects, because large companies are unable to track and predict the work habits of individual employees. Instead, companies have heretofore tracked macro indicators such as total cost and total time (specification, page 2, lines 20-23). Planning on a macro level is not accurate and does not identify reasons for inaccuracies. Consequently, the planning model cannot be refined (specification, page 2, lines 23-26). This invention divides projects into identifiable tasks, and develops verbs to describe why these tasks are met, delayed, or completed early. Consequently, a project planner has a whole new accurate language and group of data for analyzing, planning, and managing projects.

SUMMARY OF DUNCAN REFERENCE

Duncan suggests macro level approaches to organizational planning in highly generalized, theoretical terms. Duncan's inputs include considerations such as project interfacing, staffing requirements and time constraints, such as those used within a large company.

Duncan contains only limited discussion of the factors necessary for adequate task or activity planning, separately from projects. In Duncan's index, under "tasks" is contained a directive "See *activity*" (page 170). To describe activities, Duncan gives details about activity definitions, sequencing, and duration estimating (Figure 6-1, page 60), using techniques such as precedence diagramming and conditional diagramming. However, Duncan does not address the planning and managing of specific tasks, instead relying on macro attributes (e.g. time and cost). In tying planning to these macro attributes that are used regardless of the employee base, Duncan is inherently limited and fails to account for the way people actually work.

HOW THE PRESENT INVENTION DIFFERS FROM DUNCAN

The present invention, unlike Duncan, recognizes that certain factors that effect planning and management are incapable of being quantified on a macro level and must be incorporated into the planning process on a micro level. It recognizes that the best knowledge of how productive or efficient an individual employee will be over a given time period is likely to rest with that individual employee (specification, page 5, lines 14-16). Conversely, Duncan does not in any context discuss or suggest receiving input from an individual employee. Instead, Duncan discusses activities, which are alleged to correspond with the tasks of the Present Invention, only in group or aggregated terms such as resource capabilities, resource requirements, and external dependencies (page 60, blocks 6.2, 6.3). Thus, input from individuals is not important in the Duncan system. This is significant because not every individual is able to predict or schedule work with the same degree of accuracy. Thus, the accuracy of an entire group to plan and execute on that plan is only as good as the weakest link (specification, page 5, lines 18-19). The present invention

recognizes this and provides a system and method that uses tasks and user defined goals to measure predictive ability. As individual predictive ability is optimized, the group's predictive ability is also optimized, which permits projects to be planned and executed with a greater degree of planning accuracy (page 5, lines 22-23).

Tasks are assigned for a predetermined time, up to the tasking horizon, by an employer or project manager. The claimed tasking horizon is designed to be a realistic planning window that corresponds to the length of time most employees can plan their work (page 6, lines 6-7). Again, the emphasis is on individual employees, as opposed to the macro, overall project approach of Duncan.

Thus, the present-system has several stages. Individual employees are permitted to be individuals and plan their work as individuals, and are only asked to plan their work within a limited tasking horizon. These individual employees track their progress using verbs that are designed to capture the reasons behind positive and negative predictive ability (page 5, lines 19-24). As the system works by maximizing the employee's predictive ability, it is preferable that the employee has some control over the scheduling of tasks (page 7, lines 2-4).

Conversely, within Duncan, such employee control is not contemplated. Instead, as shown in Duncan's paragraph 6.1.1, inputs to activity definitions are project inputs, at best. Indeed, as noted, task inputs are not defined. Thus, Duncan gives no indication that an individual employee or task has any control over or involvement with the activity lists.

EXAMINER'S USE OF APPROXIMATE DEFINITIONS

In the Final Rejection, several terms contained within the present invention were listed and approximate definitions were made for those terms (Final Office Action, page 5, section 12). However, the definitions of tasking horizon, verb, and churn are incomplete and an oversimplification of how they are described in the instant specification.

Specifically, the definition of tasking horizon supplied by the Office Action is incomplete/inaccurate in that it does not mention the farthest point in time in the future where a manager believes a task will be completed as planned (specification, table page 9). Instead, the Final Office Action mistakenly defines tasking horizon as a window of time over which tasks can be scheduled, or (alternatively) the duration of time included in the planned time span defined by the task start and stop dates (Final Office Action, page 5, section 12, paragraph 2). Neither of the alternatives are consistent with the definition provided in the specification.

Additionally, the Office Action's definition of verb is also incomplete. That definition mentions reasons for churn and why a task was performed as planned or not, but does not mention requiring the employee to select a verb so as to facilitate the standardization of employee/employer dialogue so that it is capable of analysis (specification, page 14, lines 5-7). Finally, the definition of churn supplied by the Office Action (page 5, section 12) is incomplete. That definition mentions movement of tasks in relation to a tasking horizon and the difference between planned start and stop dates, but does not mention measuring the predictive ability of an employee (specification, page 14, lines 15-17). While the Examiner is permitted to provide the broadest interpretation possible, it cannot be done without applying those limitations already set forth in the specification.

WHY THE REJECTION IS IMPROPER

Throughout the prosecution of this application, the various Office Actions repeatedly make a summary conclusion that it would have been obvious to one of ordinary skill in the art to modify the system of Duncan. Applicants respectfully disagree with these conclusions. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. See In re Fine, 837 F.2d 1071 (Fed. Cir. 1988). No such teaching, suggestion or motivation is present in Duncan. Without using the present claims as a road map, it would not have been obvious to make the multiple, selective modifications needed to arrive at the claimed invention. The rejection uses impermissible hindsight to reconstruct the present invention from Duncan. See Ex parte Clapp, 227 U.S.P.Q. 972, 972 (Bd. App. 1985) (requiring “convincing line of reasoning” to support obviousness determination).

The Office Actions have consistently dismissed Applicants’ arguments without addressing their merits by stating that although Duncan does not necessarily use the same terminology, it is obvious that the invention is disclosed by Duncan (Final Office Action, Response to Arguments, pages 16-17). However, the Office Action mischaracterizes terms from how they are defined in the specification, supplies teachings in Duncan that do not correspond to the claims, and appears to use the instant claims as a roadmap to supply missing elements in Duncan. The fact that the present invention was made by Applicants does not make the present invention obvious; that suggestion or teaching must come from the prior art. See C. R. Bard, Inc. v. M3 Systems, 157 F.3d 1340, 1352 (Fed. Cir. 1998).

HOW THE CLAIMS DIFFER FROM DUNCAN

Claim 1

Claim 1 (emphasis added) recites a method for modeling multiple tasks for multiple users comprising the steps of:

- breaking a project into said multiple tasks;
- activating a current tasking horizon, said tasking horizon comprising one of a plurality of time frames over which said multiple tasks can be completed;
- selecting a language for at least one of said multiple tasks;
- receiving an actual date for said at least one of said multiple tasks;
- receiving an estimated date for said at least one task;
- calculating a **first negative churn** if said received estimated date is created in or moved into said current tasking horizon;
- calculating a **first positive churn** if said received estimated date is deleted or moved out of said current tasking horizon;
- calculating a **second positive churn** if said received estimated date exists in said current tasking horizon and said received actual date is moved out of or is created outside of said current tasking horizon;
- calculating a third positive churn if said received actual date is moved out of said current tasking horizon and an accompanying received estimated date is not in said current tasking horizon;
- calculating a **second negative churn** when said received actual date is created in or is moved into said current tasking horizon and said received estimated date is not in said current tasking horizon; and
- receiving language that corresponds to said actual date, wherein a verb describes a reason for said actual date and for said churn.

Independent claims 9, 10, 17, 22 and 23 contain many of the same steps set forth in claim 1 above.

The Final Office Action only peripherally addresses the claimed step of “selecting a language for at least one of said multiple tasks” highlighted above, applying Duncan’s “lessons learned” (page 6, lines 9-10, citing to Duncan’s page 46, paragraph 4.3.3.3). Selecting a language provides a medium through which structured verbs, objects, project phase definitions, and tasking horizons can be communicated (specification, table of

definitions spanning pages 7, 8). The structured verb language can also be used within the modeling module for tasks regardless of the project in which they were originally planned or performed. Conversely, Duncan's "lessons learned" refer only obliquely to documenting causes of variances in a historical database, and only anticipates lessons learned for the just-completed project. Also, Duncan's historical database contains no suggestion for selecting a language for verbs, objects, and project phase definitions and tasking horizons (as claimed). Furthermore, this discrepancy was not addressed anywhere else in the Final Office Action

For suggesting the claimed first and second negative and positive churns highlighted above, the Final Office Action relies on Duncan's tools to perform variance analysis (Final Office Action, page 7, paragraph 2, citing to Duncan pp. 30, 32, 41-42, 107-109, 110 and 111). This aspect of the rejection is respectfully traversed.

In particular, Duncan's variance analysis tools are not (1) disclosed as describing the movement of tasks in relation to a tasking horizon, or (2) do not measure the predictive ability of an employee (specification, page 14, lines 15-17). Instead, Duncan's variance analysis tools are described as comparing actual project results to planned or expected results (page 108, section 10.3.2.2), and make no allusion to being broken down to a per-task level of granularity. Also, as described above, the definition of churn supplied by the Office Action (page 5, section 12) is incomplete in that it does not teach or suggest measuring the predictive ability of an employee, and the later portions of the rejection do not address this deficiency. This feature is also found in claims 1, 9, 10, 17, 22 and 23.

In addition, the Final Office Action does not address the step of "receiving language that corresponds to said actual date, wherein a verb describes a reason for said actual date and for said churn" also as highlighted above. The rejection states only that

these elements can be found in Duncan at page 108, paragraph 10.3.2 (Office Action, page 6, section 13). However there is nothing in the referenced page and paragraph that illustrates the above-noted limitations. Moreover, there is no corresponding explanation supplied in the Final Office Action. Having no other information as guidance to the reasoning of the Examiner, it will be assumed that Duncan's performance reviews and variance analysis are somehow intended to correspond with the claimed verbs. However, Duncan's performance reviews are described as meetings held to assess project status or progress including using variance analysis to compare actual project results with planned or expected results (page 108, paragraphs 10.3.2.1). Conversely, the claimed verbs are described as a series of potential answers to standard questions, such as why did someone perform this task faster or slower than estimated, where those verbs can be broken down into separate categories (col. 6, lines 17-22). Duncan's performance reviews and variance analysis do not teach or suggest the claimed verbs as defined in the specification. Verbs are also explicitly recited in claims 1, 9, 10, 17, 22 and 23.

Claim 2

Claim 2 recites the step of classifying a received verb as being employee-dependent. In response, the Final Office Action asserted that Duncan's staffing requirements and organizational constraints (page 8, citing Duncan's page 95, paragraph 9.1.1.2-3) correspond to the claimed element. This assertion is respectfully traversed. Duncan's staffing requirements and organization constraints are not described as being a sub-category of a verb, or a series of potential answers to specific questions. For at least the above reasons, the rejection of claim 2 should be withdrawn.

Claims 3, 4

Claims 3 and 4 recite the steps of classifying a received verb as being task-dependent and environment-dependent, respectively. In response, the Final Office Action asserted that Duncan's activity list and supporting detail (page 8, citing Duncan's pp. 61-62, paragraph 6.1.3) correspond to the claimed element. This assertion is also respectfully traversed. The activity list and supporting detail is not described anywhere within Duncan as a sub-category of verb or series of potential answers to specific questions. For at least the above reasons, the rejection of claims 3 and 4 should be withdrawn.

Claims 9, 23

Claims 9 and 23 recites the step of selecting at least two verbs for a task. In response, the Final Office Action asserted that Duncan's lessons learned (page 9, citing Duncan's page 46, paragraph 4.3.3.3) correspond to the claimed element. This assertion is respectfully traversed. Duncan's lessons learned are not described as being a series of potential answers to specific questions. For at least the above reasons, the rejection of claims 9 and 23 should be withdrawn.

Claims 10, 22

Claims 10 and 22 recite an apparatus for task modeling, a management module within that apparatus, and a task management station. The task modeling apparatus incorporates statistical modeling features which become important when a user wishes to plan for future projects. Several of these statistical modeling features are shown in the specification on page 12, lines 1-5, and also lines 15-19. The Final Office Action did not

directly address either of these elements, or which part of Duncan corresponds thereto.

For at least the above reasons, the rejection of claims 10 and 22 should be withdrawn.

A summary of the above arguments is supplied in the following table.

Claimed Element (claim#)	Element within Duncan	Analysis
<u>Language</u> (1)	Lessons learned (Office Action, page 6, citing Duncan's page 46, paragraph 4.3.3.3)	Duncan's definition of the "lessons learned" is not consistent with the claimed "language", e.g. the lessons learned are not described as providing a medium through which structured verbs, objects, project phase definitions, and tasking horizons can be communicated
<u>Churn</u> (1, 9, 10, 17, 22 and 23)	Variance analysis tools, which compare actual project results to planned or expected results (Final Office Action, page 7, paragraph 2)	Duncan's definition of the variance analysis tools is not consistent with the claimed churn, e.g. the variance analysis tools are not described as (1) describing the movement of tasks in relation to a tasking horizon or (2) measuring the predictive ability of an employee
<u>Verb</u> (1, 9, 10, 17, 22 and 23)	Performance reviews and variance analysis including meetings held to assess project status or progress including using variance analysis to compare actual project results with planned or expected results (Final Office Action, page 6, citing Duncan's page 108, paragraph 10.3.2)	Duncan's definitions are not consistent with the claimed verb, e.g. performance reviews and variance analysis are nowhere described as a series of potential answers to standard questions, where those verbs can be broken down into separate categories

Classifying said received verb as being employee-dependent (2)	Staffing requirements and organizational constraints (Final Office Action, page 8, citing Duncan's page 95, paragraph 9.1.1.2-3)	Not described anywhere within Duncan as a sub-category of verb or series of potential answers to specific questions
Classifying said verb as being task-dependent (3) or environment-dependent (4)	Activity list and supporting detail (Final Office Action page 8, citing Duncan's pp. 61-62, paragraph 6.1.3)	Not described anywhere within Duncan as a sub-category of verb or series of potential answers to specific questions
Selecting at least two verbs for a task (9, 23)	Lessons learned, necessity of documenting same (Final Office Action page 9, citing Duncan's page 46, paragraph 4.3.3.3)	The resemblance between the claimed term and Duncan's term is semantic only, in that Duncan's lessons learned make no mention of verbs or of their use in tasks
Apparatus for task modeling, management module, task assignment station (10, 22)	Not addressed in any Office Action, merely repeated earlier rejections. No mention of statistical modeling in Duncan	A rejection must address all claimed elements

OBVIOUSNESS

The Final Office Action concludes that it would have been obvious to modify Duncan to disclose the functionality necessary to calculate churn . . . through the performance reporting mechanisms of Duncan, since they are **already encompassed** by Duncan (Final Office Action, page 7, 2nd paragraph, emphasis added). There is no factual or legal basis for this conclusion. While Duncan broadly recites general ideas about management, it does not suggest the computing of positive and negative churn as claimed using the terms as defined in the specification.

Similarly, the Final Office Action also states it would have been obvious to modify Duncan to specifically disclose computing churn because Duncan discloses the necessary functionality, . . . and these specific features may enhance the desirability of the

invention (page 10, bottom paragraph). Making alterations to a reference to “enhance the desirability of an invention” is not a sufficient motivation to sustain a rejection under 35 U.S.C. §103. It is unsupported conjecture, not a prima facie basis for non-obviousness. The same is true for being “already encompassed” within Duncan. If it is certain that Duncan “already encompasses” the claimed invention, then the specific teachings provided by Duncan need to be shown. These teachings do not exist.

Throughout the prosecution of this application, the various Office Actions repeatedly make a summary conclusion that it would have been obvious to one of ordinary skill in the art to modify the system of Duncan. Applicants respectfully disagree with these conclusions. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. See In re Fine, 837 F.2d 1071 (Fed. Cir. 1988). No such teaching, suggestion or motivation is present in Duncan. Without using the present claims as a road map, it would not have been obvious to make the multiple, selective modifications needed to arrive at the claimed invention. The rejection uses impermissible hindsight to reconstruct the present invention from Duncan. See Ex parte Clapp, 227 U.S.P.Q. 972, 972 (Bd. App. 1985) (requiring “convincing line of reasoning” to support obviousness determination).

The Office Actions have consistently dismissed Applicants’ arguments without addressing their merits by stating that although Duncan does not necessarily use the same terminology, it is obvious that the invention is disclosed by Duncan (Final Office Action, Response to Arguments, pages 16-17). However, the Office Action mischaracterizes terms from how they are defined in the specification, supplies teachings in Duncan that do not correspond to the claims, and appears to use the instant claims as a roadmap to supply

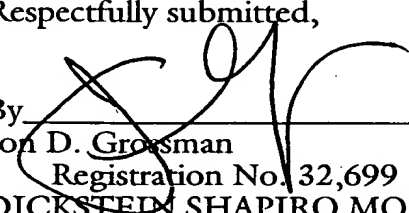
missing elements in Duncan. The fact that the present invention was made by Applicants does not make the present invention obvious; that suggestion or teaching must come from the prior art. See C. R. Bard, Inc. v. M3 Systems, 157 F.3d 1340, 1352 (Fed. Cir. 1998). For at least the above reasons, the rejection of claims 1-4 and 7-37 should be withdrawn.

IX. Conclusion

In Conclusion, Appellant respectfully submits that the Final Rejection of claims 1-4 and 7-23 is in error for at least the reasons given above and should, therefore, be reversed.

Dated: January 22, 2002

Respectfully submitted,

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APPENDIX

1. A method for modeling multiple tasks for multiple users comprising the steps of:

breaking a project into said multiple tasks;

activating a current tasking horizon, said tasking horizon comprising one of a plurality of time frames over which said multiple tasks can be completed;

selecting a language for at least one of said multiple tasks;

receiving an actual date for said at least one of said multiple tasks;

receiving an estimated date for said at least one task;

calculating a first negative churn if said received estimated date is created in or moved into said current tasking horizon;

calculating a first positive churn if said received estimated date is deleted or moved out of said current tasking horizon;

calculating a second positive churn if said received estimated date exists in said current tasking horizon and said received actual date is moved out of or is created outside of said current tasking horizon;

calculating a third positive churn if said received actual date is moved out of said current tasking horizon and an accompanying received estimated date is not in said current tasking horizon;

calculating a second negative churn when said received actual date is created in or is moved into said current tasking horizon and said received estimated date is not in said current tasking horizon; and

receiving language that corresponds to said actual date, wherein a verb describes a reason for said actual date and for said churn.

2. The method as claimed in claim 1 further comprising the step of:
classifying said received verb as employee dependent.

3. The method as claimed in claim 1 further comprising the step of:
classifying said received verb as task dependent.

4. The method as claimed in claim 1 further comprising the step of:
classifying said received verb as environment dependent.

7. The method as claimed in claim 1 further comprising the steps of:
comparing said tasks of said project to previously performed tasks;
extracting previously performed task completion data, said data including
previous churn data and risk factor data; and computing an expected task completion time
based at least in part on said previously performed task completion data.

8. The method as claimed in claim 1 further comprising the steps of:
comparing said tasks of said project to previously performed tasks;
extracting a risk factor associated with said previously performed tasks;
and computing a new risk factor based at least in part on said extracted risk
factor.

9. A method for modeling tasks comprising the steps of:

breaking a project into multiple tasks, wherein there is at least a first task and a second task;

selecting a current tasking horizon from a plurality of potential event horizons representing a plurality of timeframes;

selecting at least two verbs for said first task;

selecting at least two verbs for said second task;

assigning said first task to a first task assignment station;

assigning said second task to a second task assignment station;

receiving a predicted start date and a predicted completion data for said first task from said first task assignment station;

receiving a predicted start date and a predicted completion date for said second task from said second task assignment station;

receiving an actual start date and a first verb for said first task;

receiving an actual start date and a second verb for said second task;

computing churn of said first task;

computing churn of said second task;

computing a risk factor for said first task based on said first verb; and

computing a risk factor for said second task based on said second verb.

10. An apparatus for task modeling comprising:

a management module for breaking a project into tasks, selecting a tasking horizon and for assigning at least two verbs for at least one of said tasks;

a task assignment station for receiving said at least one task and for entering a predicted start date for said at least one task and for entering an actual start date;

wherein said management module and said task assignment station are operationally connected and wherein said management module receives said predicted start date and said actual start date and computes a churn and assigns a risk factor to said task based on at least one of said verbs, wherein said at least one verb describes a reason for said churn.

11. The method as claimed in claim 1 further comprising modifying said computed risk factor based on a subsequent churn value.

12. The method as claimed in claim 11 wherein said method results in a reduction of said churn.

13. The method as claimed in claim 1 wherein said actual dates comprise an actual start date and an actual stop date.

14. The method as claimed in claim 1 wherein said received estimated dates comprise an estimated start date and an estimated stop date.

15. The method as claimed in claim 1 further comprising assigning a risk factor to a second task which is dependent upon a first task.

16. The method as claimed in claim 9, wherein said second task is dependent on said first task.

17. A method for modeling tasks comprising the steps of:

- breaking a project into tasks;
- selecting a tasking horizon;
- selecting at least two verbs for at least one of said tasks, each of said verbs is task dependent;
- receiving a predicted start date and a predicted stop date for said at least one task;
- receiving an actual start date and an actual stop date for said at least one task;
- receiving one of said at least two verbs that corresponds to said actual start and stop dates, wherein said verb describes at least one reason for said actual start and stop dates;
- comparing said predicted start and stop dates with said actual start and stop dates;
- computing churn of said at least one task; and
- reviewing said churn in view of said at least one verb, and assigning a risk factor to said task based on said review.

18. The method as claimed in claim 16, wherein said risk factor is equal to a percentage of the time between said predicted start and stop dates.

19. The method as claimed in claim 7, wherein said previous risk factor is task dependent.

20. The apparatus as claimed in claim 10, wherein said apparatus classifies said churn as positive churn or negative churn.

21. The apparatus as claimed in claim 19, wherein said apparatus is utilized in a churn monitoring program to reduce said churn.

22. An apparatus for task modeling comprising:

a management module for breaking a project into tasks, selecting a tasking horizon and for assigning at least two verbs for at least one of said tasks;

a task assignment station for receiving said at least one task and for entering a predicted start and stop date for said at least one task and for entering an actual start and stop date;

wherein said management module and said task assignment station are operationally connected and wherein said management module receives said predicted start and stop dates and said actual start and stop dates and computes a churn and assigns a risk factor to said task based on at least one of said verbs having a reason associated therewith used to describe said churn.

23. A method for modeling tasks comprising the steps of:

breaking a project into a plurality of tasks;

selecting a tasking horizon;

selecting at least two verbs for at least one of said tasks;

receiving a predicted start date for said at least one task;

receiving an actual start date for said at least one task;

receiving one of said at least two verbs that corresponds to said actual start date,
wherein said verb describes a reason for said actual start date;
comparing said predicted start date with said actual start date;
computing churn of said at least one task;
computing a risk factor based at least in part on at least one of said computed
churn and said received verb.

Atty Docket No.: M3653.0001/P001

Inventor: Sandra K. Richardson, et al.

Application No.: 09/334,256

Filing Date: June 16, 1999

Title: METHOD AND APPARATUS FOR PLANNING AND MONITORING MULTIPLE TASKS
BASED ON USER DEFINED CRITERIA AND PREDICTIVE ABILITY

Documents Filed:

Appeal Brief Transmittal (1 page)

Fee Transmittal (1 page)

Check in the amount of \$320.00

Appeal Brief (25 pages)

Supplemental Amendment (4 pages)

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Sender's Initials: JDG/CT/bh



Date: January 22, 2002

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